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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Yamazaki, et al.

Art Unit : 1753

Serial No. : 08/907,182

Examiner : Alan Diamond

Filed : August 6, 1997

Title : THIN-FILM PHOTOELECTRIC CONVERSION DEVICE AND A METHOD OF MANUFACTURING THE SAME

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY TO ACTION OF OCTOBER 6, 2003

In reply to the Office Action of October 6, 2003, applicant submits the following remarks.

Claims 26-30, 32-55, 57-71, 73-76, 78, 79, 81-91, 93-99 and 103-107 are pending, with claims 26, 34, 42, 51, 59, 67, 76 and 81-89 being independent.

Claims 26-30, 32-55, 57-71, 73-76, 78, 79, 82, 86, 90, 91, 93-99 and 103-106 have been rejected for obviousness-type double patenting over claims 1-26 of U.S. Patent No. 6,544,826. Applicant requests reconsideration and withdrawal of this rejection because claims 1-26 of the '826 patent fail to describe or suggest forming a gettering layer comprising phosphorus over an entire surface of the semiconductor film, as recited in each of claims 26, 34, 42, 51, 59, 67, 76, 82 and 86.

Claim 1 of the '826 patent recites applying a solution containing phosphorous in contact with a crystallized semiconductor film, and each of independent claims 8, 14 and 20 of the '826 patent recites applying a solution containing phosphorous to a selected portion of a crystallized semiconductor film. None of the claims of the '826 patent recites applying the solution to the entire surface of the semiconductor film.

Recognizing this, the action argues that application of the solution to the entire surface is within the scope of the claims of the '826 patent, and points to Fig. 1D of the '826 patent as supporting this. In particular, the action argues that the phosphorous layer 107 resulting from a solution covers the entire surface of the semiconductor layer 102, and that the presence of a mask

104 between the phosphorous layer 107 and the semiconductor layer 102 is not excluded by the claims.

Applicant respectfully disagrees. In particular, the portions of the phosphorous layer 107 that are separated from the semiconductor layer 102 by the mask 104 would be prevented from causing gettering of the underlying semiconductor film and, accordingly, cannot be said to be part of a gettering layer. For at least this reason, Fig. 1D does not illustrate an arrangement in which a gettering layer comprising phosphorous is formed over an entire surface of the semiconductor film, and such an arrangement would not have been obvious in view of the claims of the '826 patent.


With respect to the provisional double-patenting rejection of the claims for obviousness-type double patenting over the claims of application numbers 09/939,767 and 10/074,050, applicant will consider whether to file a terminal disclaimer based on the status and content of those claims when the claims of the present application are otherwise found to be allowable. Accordingly, applicant requests that these provisional rejections be held in abeyance at this time.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: _____

1/6/03


John F. Hayden
Reg. No. 37,640

Fish & Richardson P.C.
1425 K Street, N.W.
11th Floor
Washington, DC 20005-3500
Telephone: (202) 783-5070
Facsimile: (202) 783-2331